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ABSTRACT

A method for producing Group III nitride films with high indium content and superior optical quality. The Group III nitride film will produce light in the ultraviolet, blue, green, yellow, and red spectral regions. This will enable fabrication of full-color displays and produce a reliable white light source. A metal organic chemical vapor deposition (MOCVD) process in combination with a photochemical process reduces the growth temperature required to produce optical quality Group III nitride films.

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